

REMARKS/ARGUMENTS

Claims 1-7 were rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-10 of Stark et al., U.S. Patent No. 7,128,092 (Stark et al. '092), and claims 20-31 of Stark et al., U.S. Patent No. 6,701,960 (Stark et al. '960). Reconsideration of the rejection is respectfully requested.

Independent claims 1 and 8 have been amended to clarify that the at least one double-cone device is located in the well during operation and sucks in the contaminated water from the well. Antecedent basis for the amendment to independent claims 1 and 8 is found in the specification, for example, on page 8, lines 9-15.

Amended claim 1 is patentable over Stark et al. '960 and Stark et al. '092 since Figs. 5-7 of both of those references disclose that a double-cone device 1 is disposed within a closed inner branch between osmosis units 36, 45. No double-cone device is disposed in the well, (i.e. at the entry supply stream 39), and no double-cone device is provided in the flow of concentrate disposal controlled by the regulating valves 47 and 48 in Figs. 5 and 6 or regulating valve 48 in Fig. 7.

In consequence, the claimed subject matter of claim 1 and claims 2-7 dependent thereon, differs from Stark et al. '960 and Stark et al. '092 in that the double-cone device is located in the well and is, therefore, used in an outer circle to directly return the contaminated solution to the well, leading to the advantage that the disposal of contaminated solution into the environment can be avoided. Furthermore, the fact that the contaminated solution is always returned to the initial point of the osmosis circle and reused leads to the advantage of continuous recycling of contaminated solution energy, i.e., no loss of pressure effectuated by regulating valves 47 or 48 in the Stark et al. references occurs.

Claims 1-11 were rejected under 35 U.S.C. §112, second paragraph. Reconsideration of the rejection is respectfully requested.

Claims 1, 2, 4, 5, and 8-10 have been amended to overcome the rejection. In addition, new claims 12 and 13 have been added, which are dependent upon claims 1 and 8, respectively, and based upon claims 1 and 8, respectively, before amendment herein.

Claims 1-8 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Chancellor, U.S. Patent No. 6,547,965, in view of Uhlinger, U.S. Patent No. 4,341,629, Chandler

et al., U.S. Patent No. 5,147,530, and Straub et al., U.S. Patent No. 4,792,284. Reconsideration of the rejection is respectfully requested.

Claims 9 and 10 were rejected under 35 U.S.C. §103(a) as being unpatentable over Chancellor in view of Uhlinger and Straub et al. and further in view of Brandt et al., U.S. Patent No. 5,695,643. Reconsideration of the rejection is respectfully requested.

The Examiner appears to admit, with regard to claims 1-8 and 11, that Chancellor does not disclose "that the well arrangement comprise at least one double-cone or other well pump device and that brine from the reverse osmosis membrane separators be recycled to the pump," (Office Action, page 4, second paragraph, lines 1-3).

In addition, Fig. 15 of Straub et al. shows a double-cone device 55 which is connected to valve 61 for external brine disposal into the environment, but not back to the sea water circuit shown in Fig. 15. Thus, brine energy is not conserved.

Similarly, Figs. 1 and 2 of Chandler et al. show a well water removal system with a Venturi nozzle 17 located in the well 12, which is only adapted to recycle previously purified water back to the well, but not contaminated solution. Moreover, water treatment takes place by a different method, namely by means of oxidation of the contaminants which are externally disposed afterwards via drain line 81 leading to a loss of pump energy. Thus, no reverse osmosis units are provided, no contaminated solution is produced or returned, and no recycling of energy takes place.

In view of the foregoing amendments and remarks, allowance of claims 1-13 is respectfully requested.

Respectfully submitted,

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RCF/MIM:lac



Robert C. Faber
Registration No.: 30,659
OSTROLENK FABER LLP
1180 Avenue of the Americas
New York, New York 10036-8403
Telephone: (212) 382-0700